

Applicants respectfully traverse the rejections. No claims have been amended or canceled, since the currently pending claims are believed to be patentable over the cited art.

Claim 30 is representative of Applicants' independent claims for purposes of discussing the present rejections. Claim 30 recites:

30. A method of facilitating speech recognition comprising:  
    using an automated language model learning process to acquire a set of *language models for use by an automatic speech recognizer to recognize speech, based on PIM data* associated with a user;  
    recognizing an utterance by the user by using one of the language models; and  
    using the recognized utterance of the user to identify and access a *subset of the PIM data*.  
(Emphasis added.)

No combination of Kanevsky and Gould ("Kanevsky/Gould") could render claim 30 obvious, for at least the following reasons. First, the alleged combination of Kanevsky and Gould does not include all of the limitations of claim 30. Second, there is no motivation or suggestion in the prior art to make Applicants' invention; in that regard, the motivation alleged in the Office Action is entirely too vague and inadequate to support an obviousness rejection of Applicants' claims.

The Office admits that "Kanevsky fails to teach using the language models for use in an automatic speech recognizer based on PIM data" (Office Action, p. 5). (Applicants appreciate that admission, although it does not precisely track the language of claim 30.) However, the Office contends that Gould discloses such limitations. The Office is mistaken.

Although Applicants arguments are directed to the alleged combination of references, it is necessary to consider their individual disclosures, in order to ascertain what combination, if any, could be made from their teachings. See *Graham v. John Deere*, 383 U.S. 1, 17 (1965).

Contrary to the Office's contention, neither Kanevsky nor Gould discloses or suggests *automatically learning* a set of *language* models. Second, neither Kanevsky nor Gould discloses or suggests using an utterance of the user, which has been automatically recognized by using a language models acquired from the PIM data, to *identify and access a subset of the same PIM data*.

A. The alleged combination of Kanevsky and Gould does not include all of the limitations of the present invention.

To establish a *prima facie* case of obviousness, among other requirements the cited prior art reference or references must teach or suggest *all of the claim limitations*.

1. No disclosure or suggestion of automatically learning a set of *language* models.

The Office cites Kanevsky at col. 8 lines 35-51 (Office Action, p. 5) as allegedly disclosing an automated language model learning process. The Office is mistaken. Kanevsky discloses the ability to automatically build databases and models, such as user models (e.g., col. 7, lines 61-62; col. 8, lines 32-51). However, none of the databases or models which are automatically built in Kanevsky are *language* models. A

language model is a dataset that is used by an automatic speech recognizer to *recognize speech*.

The user models discussed in Kanevsky are used to *identify* a speaker (see col. 11, lines 3-21). They are *not language models*, because they are not used to recognize *what the speaker is saying*. The Office must appreciate the difference between recognizing a speaker's *identity* versus recognizing the *content* of the speaker's *speech*. Kanevsky does not even hint that the ability to automatically build anything that could be construed as a language model within the meaning of the present application.

Kanevsky does disclose automatically building a “*voice model*”; however, a voice model (sometimes called a “voiceprint”) is used to *identify* a speaker based on his vocal characteristics, not to recognize *what the speaker is saying* (automatic speech recognition). Furthermore, the personal information in the user database shown in Fig. 4 is *not* used for speech recognition; Kanevsky clearly states that the information in the user database shown in Fig. 4 is used to improve *security* (col. 10, lines 35-41), i.e., to identify the speaker.

Thus, Kanevsky does not disclose or suggest *automatically learning* a set of *language models*.

Gould also fails to disclose or even suggest such a feature. Since neither Kanevsky nor Gould even hints at this feature, no *combination* of Kanevsky and Gould could teach or suggest it. Therefore, each of Applicants independent claims is patentable over the cited art, for at least the above reasons.

2. No disclosure or suggestion of using an utterance of the user, which has been recognized by using one of the language models acquired from the PIM data, *to identify and access a subset of the PIM data*.

The present invention as set forth in claim 30 requires that an utterance of the user, which has been automatically recognized using one of the language models acquired from the PIM data, is used *to identify and access a subset of the PIM data* ("the PIM data" being the same PIM data from which the language models were generated). For example, with the present invention a set of language models (e.g., speech recognition grammars or statistical language models) can be automatically generated from a user's personal address book, calendar and/or to do list. The user can then more effectively access that personal address book, calendar and/or to do list by using speech, which is recognized using the language models created from that data.

Assuming *arguendo* Kanevsky or Gould discloses PIM data and automatically learning language models from the PIM data, neither Kanevsky nor Gould discloses then using automatic speech recognition *to allow the user to access the PIM data*.

In Kanevsky, the personal information such as phone number, emails, etc. are merely used by the system to verify the *identity* of the speaker. The system does not allow the user to access this information using speech. The Office contends that "for example, a user attempting a remote login to a computer may be asked about when an email was received or the sender's name, etc. This information is used together with an ASR for decode text [sic] . . ." Final Office Action, p. 11. However, the information to

which the Office refers is *not* used to *recognize speech*. It is only used to identify the speaker.

Likewise, to the extent Gould may disclose PIM data, there is no disclosure or suggestion in Gould that the PIM data itself, which provided the basis for generating the language models, can then be accessed by the user with his recognized speech.

Thus, neither Kanevsky nor Gould discloses or suggests using an utterance of the user, which has been recognized by using one of the language models acquired from the PIM data, *to identify and access a subset of the PIM data*. As such, no combination of Kanevsky and Gould could suggest such a technique. Therefore, each of Applicants independent claims is patentable over the cited art, for this additional reason.

Each of Applicants' independent claims includes the limitations discussed above or substantially similar limitations. Accordingly, each of the independent claims and all claims which depend on them are patentable over the cited art for at least the above-mentioned reasons.

B. No motivation or suggestion in the prior art to provide the present invention.

When combining the teachings of prior art references to establish obviousness, there must be something in the prior art as a whole to *suggest* the desirability of making the alleged combination. *In re Rouffet*, 149 F.3d 1350, 1356 (Fed. Cir. 1998). “[T]he showing [of suggestion to combine the references] *must be clear and particular*” findings of fact based on *actual evidence*, not merely broad conclusive statements. *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999)(emphasis added). Such suggestion

may not be found using hindsight gleaned from the applicant's specification. *Id.* at 1358.

Here, the Office alleges that the motivation to combine Kanevsky and Gould is "because it would advantageously improve the speech recognition process" (Office Action, p. 5, citing Gould at col. 1, lines 43-56 (which merely provides general background on a form of speech recognition)). This statement by the Office is exactly the type of bare bones, conclusive, overly-general statement that the courts have ruled inadequate to establish the required suggestion/motivation (per *In re Rouffet*).

Noticeably absent from the Office Action are any particular findings of fact, based on actual evidence, *to support the statement of motivation* (merely citing portions of the references' disclosures, without clearly explaining how they provide a *motivation to combine* the references' teachings, is *not* adequate to establish the required suggestion/motivation).

There is *no* suggestion or motivation in either Kanevsky or Gould as to why it would be desirable to provide a system, per the present invention, in which language models are automatically learned from PIM data of a user, and then one or more of those language models are then used to automatically recognize the user's speech, which is then used to identify or select a subset of that same PIM data.

The Office's finding that there is motivation/suggestion in the prior art is clearly based solely on *improper* hindsight gleaned from Applicants' disclosure. Hindsight, while perhaps unavoidable to a limited extent (MPEP 2145), is *not* permissible when it is *acquired from the applicant's disclosure* ("Any judgment on obviousness is in a sense necessarily a reconstruction based on hindsight reasoning, but so long as it takes into

account *only* knowledge which was within the level of ordinary skill in the art at the time the claimed invention was made *and* does not include knowledge *gleaned only from applicant's disclosure*, such a reconstruction is proper." *In re McLaughlin* 443 F.2d 1392, 1395, 170 USPQ 209, 212 (CCPA 1971)). Thus, the Office's conclusion clearly is based solely on *improper* hindsight.

Accordingly, each of the independent claims and all claims which depend on them are patentable over the cited art for at least the above-mentioned reasons.

#### Dependent Claims

In view of the above remarks, a specific discussion of the dependent claims is considered to be unnecessary. Therefore, Applicants' silence regarding any dependent claim is not to be interpreted as agreement with, or acquiescence to, the rejection of such claim or as waiving any argument regarding that claim.


#### Conclusion

For the foregoing reasons, the present application is believed to be in condition for allowance, and such action is earnestly requested.

If any additional fee is required, please charge Deposit Account No. 02-2666.

Respectfully submitted,  
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